MONO-RAIL SYSTEM TO REVOLUTIONIZE RAILROAD TRAVEL

May Relegate Steam Locomotives and Heavy Coaches to the Scrap Heap.

ARE INTERESTED FINANCIAL GIANTS

Men of Millions Stand Ready to Test Practicability of Scheme of Howard Hansel Tunis-Speed of 150 Miles an Hour Is Among Promises Made.

years, has been mystifying and amus- operation. ing persons living near his father's

enterprises; Charles Stewart Smith existing corporation, and Woodbury Langdon, all members | Easy to Lay Tracks. of the Rapid Transit commission, were to back a company which will build this young engineer's single rall railroad from Jersey City to Newark.

Formal announcement of the incorporation of the new "mono-road" company is expected soon to be made in Trenton, and this, it is announced, is to be followed in the next four or five weeks by the announcement of a deal by which the new company has acquired a franchise and terminal sites in the two cities-rights presumably owned by some existing company. Inside of a year, it is promised, monorail trains will be skimming across the marshes from Jersey City to Newark, realizing the newest slogan in modern rapid transit;

"To Newark in ten minutes." Idea Is Revolutionary.

If what the young Baltimore engineer confidently claims for his quoted as saying. "mono-road" be true-and he has conmachine is ahead of the balloon,

tion and the swinging side-wise mo- very similar to the Behr system. tion of the present day railroad trains. The young Baltimore engineer's and that tracks and cars can be built plan, however, differs radically from Cars Will Be Light.

PERSPECTIVE

VIEW OF THE

MONORAL

ROAD

New York .- A young mechanical en- | makes possible and because of the gineer, for a little more than three vastly diminished cost of building and

Negotiations are under way to obhome at Windsor Hill, just outside of tain the rights needed before building Baltimore, by his experiments with a of the track can be begun and, alsingle rail railroad that he has con- though secrecy is maintained on this point and the precise route selected is Recently all the newspapers in the closely guarded, it is understood that city contained the authoritative and the backers of the company are nenouncement that John H. Starin, who gotiating for franchise rights and terhas made millions in transportation minal sites already possessed by an

According to an interview printed in the Newark newspapers, the linking of the new "mono-rail" line with the McAdoo tunnel is a possibility. Bion L. Burrows says that it would be a matter of the greatest case to run the trains from the "mono-rail" road right into and through the McAdoo tunnel without interfering with the operation of trains over the two rail line. All that would be necessary would be the laying of a single rail between the two rails, and the installation of the necesgary overhead rails to preserve the equilibrium of the "mono-rail" trains.

If this is done, it is asserted, passengers can be carried from Newark to the heart of Manhattan in ten minutes. That he is willing to enter into an operating agreement with the "mono-rail" company, William Me-Adoo, head of the tunnel company, is

This new "mono-rail" system, invinced such hard-headed business men vented by the young Baltimorian, is as Starin, Langdon and Smith that it totally different from the various other is true-modern railroading will be "mono-rail" systems, some of which revolutionized by his invention. It are in practical operation in England, will relegate to the scrap heap the Ireland, Germany and Austria-Huntwo-track railroad, the ponderous, coal- gary, and others of which are seeking eating locomotive and the big, heavy a foothold. It is entirely unlike the eight-wheeled cars along with the system, for instance, for which F. B. stage coach and the paddle-wheeled Behr, an Englishman, has been seek steamboat. His new invention, if his lng a franchise between Atlantic claims are well founded, is as far Ferry, Brooklyn and Coney Island. On shead of the locomotive-drawn train, Mr. Behr's road the cars "straddle" a running on two tracks, as the flying single triangular rall. In Germany the "mono-rail" system which has That trains will run easily at a been successfully operated is one from speed of 150 miles an hour on a single which the cars hang suspended. In rail in perfect safety, without vibra- Ireland there is a system in operation

and operated at less than half the cost all of these, and is, according to his

difference from the other "mono-rail" inventions. The overhead truck arrangement, with the four wheels, horitontally set and working on the inside | cost. of the overhead tracks, steadles the car and gives it its equilibrium. Power is also transmitted from these overhead wires for the operation of the

One of the claims made for the Tunis "mono-rail" is that trains running on it will be practically noiseless. One reason given for this is that the guide wheels on top, which run in the nave ball-bearings and this makes trethick. Another feature of the car which contributes to its noiselessness is the use of the direct current motor.

Engineer Tunis claims that the only proper system of railroad construcdouble tracks are in opposition to the laws of gravity, and make necessary tremendously heavy cars.

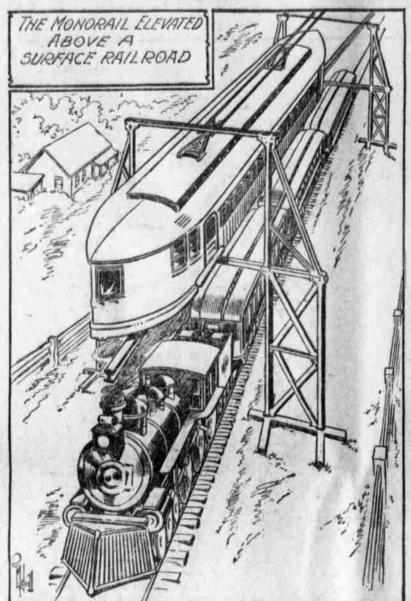
ment which constitutes the distinctive complete the cellpae of the present feature of the invention of the young system of railroad construction and Baltimore man, and marks its greatest establish the "mono-rail" as pre-eminent, still another tremendous advantage is claimed, and this is the most important of all-the matter of

It is the cheapness of the cost of the system, which, if it is what is claimed for it, threatens to revolutionize railroad construction.

Means Immense Saving.

According to the estimates made for the New York backers of the project, a four-track, elevated line, such as it is proposed to build beoverhead rails, are of east iron, oak tween Jersey City and Newark, can and leather and are so constructed as be constructed for \$75,000 per mile. to make but little noise. They also To build a four-track elevated road, similar to the present elevated system mendous speed possible. The guide in this city, would cost \$900,000 per wheels are only eight inches in mile. This does not include the cost diameter and less than two inches of power or equipment-only the structure and tracks.

The projectors of the new enterprise figure upon building the eight miles of elevated track between Jer sey City and Newark for \$2,000,000. tion is the single track, because the To build the ordinary type of elevated road, with four tracks, would cost between \$7,000,000 and \$8,000,000. is this cheapness of cost which in-In his cars, Tunis explains, the bot- spires the backers of the enterprise tom will be but 20 inches above the to hope that they will reap tremenrail, and thus the center of gravity dous profits, and that the success of will be very low. The cars will have this initial road between the two Jeran almost perfect equilibrium, even sey cities will be followed quickly by



head arrangement

Then, the cars are to be extremely light as compared with modern rail. Much interest Aroused. road cars-another element contributing to high speed. They will not weigh over seven tons.

Right here, in the two points just claimed by the backers of Engineer Tunis's system. Mr. Burrows in deare theoretically wrong.

The first and greatest essential to the reasonable grade, In short, having to overcome gravitaical ability to discover that a one-rail track is greatly superior to a two-rall No Stock to Be Sold. track, if one goes no further than to see that one wheel will only have half the obstacles to overcome that two have.'

Still another claim for the mono-rail trains is that they can be operated rail tracks, except that they are short very much cheaper because of the economy in power it is possible to standard 100-pound ralls are used realize. According to railroad men, Overhead, 30 inches apart, are sus from 15 to 30 per cent, of the power pended two parallel rails, L-shaped used to operate trains is lost in the on the inside. These overhead rails sidewise, awinging motion of cars. are supported by steel pillars placed The Tunis mono-rail trains, it is de-Starting on a short half mile stretch at intervals along the side of the road clared, have a straight ahead motion,

Nothing which ever moved on

drely absent.

without being steadled by the over- | the building of similar roads all overthe United States. The overhead truck system used in the Tunis system is patented.

How active interest in "mono-rail" railroads is, is shown by the fact that following the announcement of the plans to build the New Jersey line, referred to, is the great advantage the promoters of the company have been besieged with inquiries from persons who want to introduce the sys scribing its advantages said that en- tem in other places. One inquirer gineers had long recognized the fact was a capitalist who holds the conthat the great sprawling cars of the cession for a 400-mile railroad in present, with their immense weight, South America, much of the route of which runs through inaccessible coun-"These big heavy cars are in effect try. The Tunis "mono-rail" is eshouses set upon wheels," he said, pecially adapted for use in a rough These wheels are placed four feet country because of the fact that the eight and one-half inches apart, with lightness of the cars makes it possible the center of gravity between them. to operate the trains up almost any

whole system is that the cars must be To all these inquirers the promo heavy in order to remain on the ters say they have replied that they tracks. Here, then, is the whole key are not in the field for the exploita to railroad inefficiency, that in a sys- tion of the new system, or even for tem whose only excuse for being is money making. Mr. Starin, the leader the ability to make speed the prin- in the enterprise, has announced that cipal requisite should be great weight. his object is not to make money so much as to put into practical use an tion, they start out by making it im- invention which he believes to be the possible. It requires no great mechan- coming railroad system of the future

> His hope to have a railroad which will carry people from this city to

> Newark in almost an inappreciable space of time, and to give an example to other railroad companies in the good treatment of employes. It is announced that no stock of the new company is to be put on the market, and that all the money that is wanted to push the enterprise will be realized by an lasue of bonds at the right time A big Wall street firm has already

agreed to underwrite them. Expert System to Be Popular.

That they ultimately expect their system to be widely introduced the promoters of the new road do not at-On top of each car at both ends is wheels can equal the speed claimed tempt to conceal. This, they expect, stration of its success.

Howard Hansel Tunis, the young Inopening and closing to accommodate we-rail trains is declared to be en- folk were too influential with the exposition management and be was re-

SOURCES OF EMBARRASSMENT TO GUESTS.

Temptation to Sympathize with Ap parent Victim Is Something to Avoid-Where Diplomacy is Called For.

than to find one's self a guest in a disunited household.

One must be gifted with wonderful tact and prudence to be able to avold taking sides and making remarks which embroil one with all parties, for no matter how much they fight among common cause against an outsider.

between the blades of the scissors. Yet, how persistent is the temptation to sympathize with an apparent victim and mingle our own indignation with the outbursts of which we lean, lank and solemn looking man. are made the confidant.

younger sister in a jealous rage who had a cow or a balloon to sell. against her seniors. Almost av 'ly it is one of the wom-

en of the .amily who pours out an account of her sufferings in the guest's business air about him. After saying five cent packet of Rochelle saits in

Men are not above making a breakfast table scene by a casual utterance of slurring observation upon women Mrs. Bowser asked him what was goin general, which particular women jing to happen. women.

mate of a woman's family where she is at variance with her husband, and mouth?" asked Mrs. Bowser. remain strictly neutral and impassive without convincing her that you are heartless and absolutely unsympa-

One finds it safest to express admiration and wonder at the patience and long suffering of the woman who thus craves your sympathy, mingled with dextrous little compliments for good qualities in the offending man whom she would be ready to tear your eyes out for abusing. After all, diplomacy is the course

nost nearly approaching justice, for in family feuds there is invariably omething to be said in favor of all

A NOVEL FAN BAG.

Provides Against Loss of This Very Useful Article.

The number of lost and strayed fans which are generally found in the ballroom after a dance tells its own tale, and surely points a moral for those who are anxious not to buy a new fan after every party. Some such little fan bag as the one which we Illustrate might save many a fan from an un timely end. It would be useful, too, for taking to the theater, or when traveling by train, in evening dress, from the suburbs.

The shape of the bag is so simple



in the way of explanation. The bag might be made in brocade, with a satin lining, edged with silk cord in some shade to harmonize, and finfahed with a long loop of satin ribbon which can easily be twisted round the wrist, or suspended from the waist. A little sachet powder scat tered between the brocade and the lining would be an improvement to a bag of this description, and would be just enough to give a delicate perfume to the fan.

Black for Summer.

It may comfort women to know who won't be as fashionable this summer mer show by sea and shore.

Black will be regarded as "smarter"

FEUDS IN FAMILIES BOWSER HAS SCHEME

Finds Man Who Has Invented Way to Reduce Coal Bills.

MAKES A TEST IN FURNACE.

Few things are more embarrassing Formula Fails to Bring About the Desired Result, and Experiment Ends In a Fight-Mrs. B. Tries to Console Disheartened Husband.

[Copyright, 1907, by Homer Sprague,] At 2 o'clock the other afternoon a strange man called at the Bowser themselves they are certain to make a house and asked if he was home yet and when answered in the negative After one has been cut a few times said that he had an appointment with they learn not to put their fingers in him for that hour and world wait. While he sat down on the front steps Mrs. Bowser cudgeled her brains as to think I didn't. If you will hand me what he might want. He was a long, He seemed a man who had been dis-It may be the wife who is at odds appointed in the world and had lost all by the conduct of a son-in-law, or the hope. She couldn't think he was a man

> The mystery had lasted only a quarter of an hour, when Mr. Bowser came bome. He was walking fast and had a a few words to the man on the steps he entered the house, and of course

are bound to take up and respond to "The man out on the steps is a Mr. with all the enthusiasm of self-de Rasher," he replied. "I have been talkfense. But these caustic remarks are ing with him all the forenoon. He is usually thrown off carelessly and with the man who invented the 'catch anyout the betrayal of wounded feelings, thing trap. It will catch anything which characterizes the irony of from a bug to an elephant, and the man who beat him out of his patent It is scarcely possible to be an in- has made a million dollars out of it." "Is that why he looks so down in the

He Was an Inventor.

"That and other things. He is the inventor of the double ended nursing bottle for twins. He brought out the machine to throw cats off the fence.



A SORT OF EXPLOSION BLEW THE FURNACE

He invented pasteboard soles for shoes, that the sketch does not require much and all in all be has brought out a dozen good things. He has trusted fruits of his labor."

"And has he now invented an India rubber barrel or something else he wants you to take up with him?"

"Don't try to be sarcustic at this early stage of the game. Mr. Rasher dropped into the office this morning to see me on business. From the first instant he set eyes on me he felt that he could trust me. As he told me later, I | have a frank and Innocent countenance that is an index of my soul. After we had talked for an hour he told me that he was the inventor of a patent fuel that is going to make mif-Hons of dollars for some one "

"But there are half a dozen men making the same claim," protested Mrs. Bowser, "and as far as we know

nothing great has come of it." "Never you mind about the half dozen men and their claims. Their names are not Itasher. This man knows what he is about. When he says that he has a fuel that is going to revolutionize the world and drive 10,000 coal dealers to suicide you can get ready man ran through the kitchen hall and for something to happen. What he wants is money enough to get this patent. He wants me to advance the amount and will give me half his rights. I am not to advance a cent until after I have satisfied myself that the fuel is all right. Have you any fault to find with that arrangement?" "Why, no, but I hope you will be

she quietly observed: thoroughly satisfied before you go into such a thing." Considered Him Honest.

"Certainly I shall. Mrs. Bowser, I am no ten-year-old boy. I think the man is honest and sincere, but I shall still have an eye on him. If he's shamming he'll find a man as smart

"But how are you going to find out about the fuel?" "We are going to born some in the

furnace. It's pretty hot weather, but I guess we ean stand it for an hour or so. I shall insist on the severest

tests." Mrs. Bowser thought there might be live in this weather-vane town to something in it and raised no further know that light colors for street wear objections. She had read that others were experimenting and why not Mr as in the last heated ferm. A fash Bowser? While he was getting into ionable decree just issued in Paris is an old suit of clothes Mr. Rasher disto the effect that black again will appeared for a few minutes. Then a have its innings, and the thin black horse and wagon drove up with three gown will figure largely in the sum or four bags full of something that | were carried down cellar. Then there was a mixture. As pear as Mr. Bowthan the light-colored mushroom mil ser could determine, for Mr. Rusher linery, with its burden of unnameable wasn't giving things away yet, the bage contained ashes, sand and lime.

He—Well, you can't tell we happen on a pinch.—Optical

When they had been mixed together a powder was sprinkled over the heap, and it was dampened with water, Three or four old boxes were knocked to pieces and a fire started in the furnace, and when there was a good blaze going the inventor said:

"We will now shovel the mixture in and you will see something wonder-

The wenderful thing occurred two minutes later. A sort of explosion blew the furnace door open, and a great puff of acrid smoke went floating all through the house. At the sains moment all the fire in the furnace went out, and Mrs. Bowser called from the head of the cellar stairs:

"Mr. Bowser, what on earth is happening down there?"

"Nothing. It was just a back draft from the furnace, probably by a rat's nest in the chimney. There is no call for you to get excited."

"It may be that I didn't get in the right powder," explained Mr. Rasher as he peered into the furnace. "No; I \$2 I will go and get the other thing."

"But, man, don't you know the proper ingredients?" asked Mr. Bowser. "Haven't you got them written down?"

"No. I might lose the memoranda, you see. I want to be careful this time. Being a little excited, I may have asked for the wrong powder."

He took the money and was gone ten minutes and then came back with a his hand and let Mr. Bowser see the label on it to show that he trusted He didn't return the change from the bill. The fire was rekindled, the salts sprinkled on the heap, and after ten minutes a shovelful of the mixture was dumped in, with the ob-

Must Close All Drafts.

"We now have sufficient fuel in the furnace to last for a week. As soon as things get redhot we must close all the drafts."

But things did not get redbot. There was a sputtering and a stewing inside the furnace for two or three minutes, and then there seemed to be nothing further doing. Mr. Bowser and Mr. Rasher sat on their boxes in silence and expectation, and the gas meter uttered a sort of wall and registered another 500 feet. Finally the inventor arose, tiptoed over to the furnace and opened the door.

All inside was blackness and darkness. There was no redhotness-not by a jugful.

"The thing don't seem to pan out," said Mr. Bowser in hard tones. "No, but I see the reason. I should have burned a certain powder to clear the flues of dust first. In my haste and anxiety I forgot that. If you will give me \$3 I will run over to the drug

store." "What's the name of the powder?" "Excuse me, but I will tell you later on. Once the dust is out of the flues all will be well. You might be shaking

the stuff out while I am gone." Mr. Bowser gave up grudgingly. He was losing faith in Mr. Rasher and dreading Mrs. Bowser's words and looks. The inventor departed. visited the drug store and a saloon and returned after awhile with a lump of

something in his hand. "I thought you went for powder?"

queried Mr. Bowser. Meant a Lump.

"Did I say powder? I often say that when I mean lump. We will be all "Isn't there some change coming to

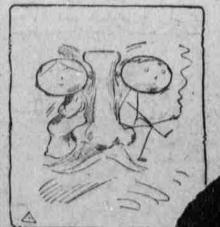
"I believe so, but I can't stop just now. In with your paper and kindilines.

When a fire had been lighted once more the powder was thrown in, and the men stood back. They needn't have done so. That lump of something was only chalk and had no idea of exploding. After two minutes some more of the patent fuel was shoveled in, and Mr. Rasher smiled and said:

"There won't be any more disappointments. Hear the furnace roar?" But there was no roar. There came a sound like a lean woman frying lean bacon over a corncob fire, and then there was a flicker, and all was as still as the grave. Mr. Bowser looked into the furnace to find the same old blackness. As he turned to ask Mr. Rasher what in ! ! ! he meant by ! ! ! the inventor made for the stairs. There was a yell, and Mr. Bowser made after him. The fleeing out of the area gate, but before he could leap the front gate Mr. Bowser caught him. Fifteen minutes later as Mrs. Bowser was putting salve on a skinned nose and washing a bitten ear

"Never mind, dear. You have got a shovelful of sand and lime left down cellar, and we will try and get along some way until you can tuvest in a new burgiar alarm and make \$1,000; M. QUAD.

Can't Always Tell.



She-I thought you said would ever come between us?

interested in it.

through the Jerkey City to Newark "mono-road," and by scores of others who have investigated the new plant and are anxious to become financially

brief, is the young engineer's claim.

only believed by a practical transpor-

tation man of 40 years' experience

like John H. Starin but by a big firm

in Wall street which has agreed to un-

derwrite all the bonds required to put

First Practical Test. of track inside the exposition grounds and connected by steel beams without any side-swing. at Jamestown, the first practical test stretched across the track. of the new road was made in public,

me of them assert that it will revfige modern railroading because itself to the curves.

far to build.

about three and a half feet in length | Economy in Operation. the same sort of ties used in the

although for three years the young in attached an inverted track. This is for the Tunis "mono-rail" trains. One will speedily follow a practical demonventor, Howard Hansel Tunis, has raised from the car by a strong steel hundred miles an hour is an easy maten experimenting in the suburbs of arm, corresponding to a trolley pole, ter, and the cars can be pushed to 150 and the four wheels attached to the miles without any difficulty. And, ventor of the system, is at James-More than a dozen noted engineers, inverted truck fit into the "L" shaped while the cars are going at this speed, town, where he is superintending the ong them Chief Engineer George S. Inner surface of the overhead tracks it is claimed that the motion is so running of trains over the experi-Rice, of the Rapid Transit commission. The trucks are in the form of an X gentle that passengers are barely mental half-mile track. Tunis wanted have investigated the new invention with a wheel at each of the four aware of the fact that they are mov- a much longer track, but it is said and have pronounced it practical points of the "X." The "X" is flexible ing. The jerky, swinging motion of that the trolley companies of Nor-

PERSPECTIVE VIEW AND DIAGRAM SHOWING CONSTRUCTION OF

of the present equipment-this, in | claims, safer, faster and cheaper by That he can do what he says is not Construction Details. The single track is laid across ties

MONORAIL

construction of the present day twoer. Sixty-pound rails instead of the

of the tremendous speed which it It is this overhead truck arrange! As if all this were not enough to stricted.